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CITY OF RIVERSIDE
HUMAN RESOURCES DEPARTMENT
CLASSIFICATION SPECIFICATION

TITLE: WASTEWATER CO-GENERATION SPECIALIST

DEFINITION

Under general supervision, operates and maintains the Wastewater Plant's generating facilities within the Public Works Department and performs a variety of technical tasks relative to assigned area of responsibility.

DISTINGUISHING CHARACTERISTICS

The Wastewater Power Generation Technician is a journey level position assigned the responsibility of monitoring and controlling the process activities of power generation and landfill gas collection. This technician position also is tasked with managing mechanical outsourcing, Air Quality Management District compliance, and related reporting activities associated with the generation of power at the wastewater facility.

REPORTS TO: Wastewater Maintenance Manager

SUPERVISION RECEIVED AND EXERCISED

Receives general supervision from the Wastewater Maintenance Manager. Exercises general supervision as directed.

EXAMPLES OF DUTIES

Typical duties may include, but are not limited to, the following:

- Operate and maintain a co-generation system; including plant equipment, auxiliary equipment and related support equipment.
- Perform sampling, tests and analyses on boiler samples, feed waters, water conditioning equipment, condensate and ground water wells. Operate, monitor, inspect, maintain and adjust equipment related to the co-generation system/process including: fuel collection, treatment and delivery systems, gen-sets, cooling systems, heat delivery systems and auxiliary equipment in both the standby and operating modes.
- Place in service and remove from service normal duty and standby equipment, gen-sets and associated equipment, boilers, flares and other items as directed by management.
- Ensure Natural, Landfill and Biogas fuel supplied to co-generation system/process meets internal combustion gen-set requirement, initiate corrective measure as necessary.
- Add chemicals to treatment boiler feed water and water conditioning systems.
- Deliver and place orders for consumables, parts and services.
- Perform plant equipment safety tag-out; respond to emergency situations and on-call as assigned.
- Review, maintain, evaluate and file operating logs and records to determine plant availability and compliance with the Environmental Protection Agency, South Coast Air Quality Management District and other governing agencies.
- Develop and implement contingency plans related to power plant operations and maintenance.
- Report daily to off-shift Senior Operations Staff co-generation and ancillary systems status.
- Develop and update standard operating procedure manual.

- Maintain hazardous communication for co-generation system/process.
- Contribute to the compilation of compliance reports.
- Prepare operational reports with regard to power production costs, consumable trends, peak trends and operation efficiency.
- Attend and perform training as assigned in the areas of safety and system operation.

QUALIFICATIONS

Knowledge of:

- Basic physics, chemistry, thermodynamics, electricity and electronics as it applies to gas engines, boilers and electric generation.
- Hazards involved and safety precautions required when working in and around electric generation equipment including energized circuits.
- South Coast Air Quality Management District regulations understanding is desirable.

Ability to:

- Read, understand and follow written and/or oral instructions. Read and understand technical data, publications and manufacturer's instructions as it pertains to co-gen systems, components and ancillary systems and equipment.
- Troubleshoot system malfunctions, performance losses and errant situations as they arise.
- Operate, utilize and maintain quantitative and qualitative measuring devices to ensure operation efficiency.
- Read precision recording instruments and keep records.
- Read mechanical and electrical drawings.
- Think clearly and logically and act decisively and properly in emergency situations.
- Operate a vehicle safely.
- Operate radio and telephone equipment.
- Learn mechanical skills.
- Establish and maintain effective working relationships with those encountered in the course of work.
- Operate a personal computer with Microsoft Windows and Microsoft Office software.

Education and Experience:

Any combination of experience and education that would likely provide the required knowledge and abilities is qualifying. A typical way to obtain the knowledge and abilities would be:

Education: Equivalent to the completion of the twelfth grade.

Experience: Journey-level control room operating experience in power plant generation, utilizing a gas generator as a prime mover with heat recovery steam generator, continuous control system, or equivalent experience is necessary. Journey-level power plant maintenance experience with instrumentation and computerized control systems or equivalent is desirable.

MEDICAL CATEGORY: Group 2

NECESSARY SPECIAL REQUIREMENT

Possession of an appropriate, valid class "C" California Motor Vehicle Operator's License.

Possession of, or ability to obtain, a Grade 1 Mechanical Maintenance Technologist certificate as issued by the California Water Environment Association within 18 months.

CAREER ADVANCEMENT OPPORTUNITIES

FROM: Wastewater Co-generation Specialist

TO: Wastewater Mechanical Maintenance Supervisor